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EVM Report Template

User Manual

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Table of Contents:

System Requirements

The following system requirements are necessary to operate the EVM Report Template tool:
**Windows NT/2000/XP/2003
Server/Vista, Microsoft Excel 2003/Word 2003**

Customer Support

If you have any difficulties or queries related to the EVM Report Template tool or queries related to Microsoft® Office Project or any other software related concerns, please contact Connoizor Customer Support through the following email address support@connoizor.com. Please do not contact J. Ross Publishing, Inc., the publisher of my book. J. Ross Publishing does not provide assistance for software developed and produced by another firm or party.

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Overview

The EVM Report template can be used to report the Project Status, Project Progress and also forecast the future Project Performance as of the current period. The period for the EVM Report template can be customized to various timeframes such as weeks, fortnights, months or bi-months.

Most of the information needed for the EVM Report Template sheets (or screens) comes from the Microsoft Project Plan. Microsoft Project Plan needs to be prepared in a specific way to enable you to get data from the Microsoft Project Plan and into the EVM Template. This is explained briefly under Microsoft Project Prerequisites on page 5 of this user manual and in more depth within my book entitled Earned Value Management Using Microsoft®Office Project: A Guide for Managing Any Size Project Effectively.

The EVM Report Template contains the following sheets.

1. **Project Details** – This sheet is used for configuring the Project details including Company Name, Project Name, Project Start and End Dates. This sheet is also used as a Main Menu Sheet and you can traverse to all the remaining sheets from this sheet.

2. **Configuration** – This sheet is used for configuring the EVM Report Template when the Project Begins. This sheet is used only once at the beginning of the Project. In this sheet you specify the Reporting Period, Additional Periods, Other Indices and EAC Calculation Method.

3. **Data Entry** – This sheet is used to enter the periodical data into the Report Template. It is used for every reporting period and the details that are needed to be entered are % Complete, EV, AC, etc. This data has to be entered from the Microsoft Project Plan.

4. **Summary** – This sheet contains various measures with their data for the current period including the Schedule Variance, Cost Variance, SPI, CPI, etc. This sheet shows a Summary of the Project performance for the current period. You can also choose to store history of the performance period by clicking on the Update History button.

5. **Help on Abbreviations** – This sheet contains help on the abbreviations used in the Summary Sheet.

6. **EVM Data** – This is the main sheet which contains the data for the EVM calculations. Data such as the PV, EV, and AC is updated automatically from the Data Entry Sheet. You are allowed to change these values in this sheet if necessary.

7. **Performance History** – This sheet is used for storing the history of the periodical performance data for keeping a record of the performance measures at each reporting period and the corrective actions and preventive actions taken.

8. **Earned Value Chart** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the Earned Value (EV) compared against the Planned Value (PV) and the Actual Cost (AC)

9. **Forecast ($)** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the Estimate at Completion (EAC) compared against the Budget at Completion (BAC).

10. **Forecast (Time)** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the Estimate at Completion (EAC) in wks/months depending on the period you choose compared against the total wks initially budgeted.

11. **Forecast (Index)** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the To-Complete CPI (Cost Performance Index) and SPI (Schedule Performance Index). These measures would indicate what the indices would need to be going forward in the Project.

12. **Variances ($)** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the Schedule Variance and Cost Variance as measured with the efforts/cost. This is generally in hours/dollars as the case may be. Schedule Variance as measured with the efforts/cost is not a good measure to use for schedules as it goes down to zero at the end of the project immaterial of whether the project was on schedule or not. But is still given here as that is the standard used in the Industry.

13. **Variance (Time)** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the Schedule Variance as measured in time periods (weeks/fortnights/months).

14. **Schedule & Cost Indices** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the SPI and CPI of the project as of the current period. A "one" on these indices indicates that the schedule and the cost performances are on target.

15. **Other Indices** – This sheet in the form of a chart comes up only after you setup the EVM Report Template from the Configuration Sheet. This chart shows the other indices such as the Risk Index, Project Health Index, and Process Compliance Index.

Read Me First Instructions

To register and correctly enable the EVM Report Template tool for future setup and use, you must first follow several instructions. (Important: To register the tool, an internet connection is required)

Although "Preliminary Instructions" are displayed on the software title page which once completed activates a "Read Me First" button that you may click on for further instructions needed to register and enable the tool, they are repeated in this user manual and in chapter 1 of my book for your convenience.

Assuming you received the EVM Report Template tool from a CD included with my book and not in the form of a download, you will need to copy this EVM Report Template tool from the CD to your local PC using the instructions that follow. The CD is for registering and installing the software to your computer.

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Step 1: Load the CD into your computer. The EVM Report Template will appear. Double click on the template to open it.

Step 2: Because this tool uses Excel macros, you must enable these macros in order to use the tool. If your Excel security is currently set a medium or low, proceed to Step 3. If your Excel security is currently set at high, a prompt will appear asking if you wish to change your security to medium or low. Click Ok. (A setting of medium is sufficient for most users). To change your security level, go to Excel Tools--> Macro --> Security and set the security to Medium and click Ok.

Step 3: The EVM Template tool also uses two Excel Add-ins. You must install the add-ins to be able to use the tool. To install the add-ins, go to Excel Tools --> Add-ins and select the Add-ins "Analysis - Toolpak" and "Analysis - Toolpak VBA" and click ok. *(Although a rare occurrence, depending on how you initially installed Excel to your computer, having your Excel installation CD may be necessary in order to install the add-ins.)*

Step 4: The next step is to install the tool to your local PC desktop. The security level change made if needed and add-ins will become activated upon saving the tool to your desktop and reopening it. To save the tool, go to Excel File and click on Save As and save the tool in your desktop location and then close the original file completely. From this point forward, you will be accessing the copy of the tool that has been saved to your desktop.

Step 5: The next step is to register the tool for use. Double click on the copy of the tool saved to your desktop. You will immediately see a prompt to enable macros. Click on Enable Macros. *(Note: Each time you close the tool, the macros will automatically be disabled; therefore, each time you open the tool you will need to click on the Enable Macros button to use the tool.)*

After you click on enable macros, you will come to the title page of the software. Click on the Go to Main Page. On the main page, click on each field and enter the information that is requested: your company name in this field, then your name in both the company contact and the project manager fields, and then your e-mail address. For registration purposes, the company contact name and the project manager name should be the same.

After completing this process, click on the Register for Trial button. Please note that the tool needs an internet connection to register. Once you have completed this registration process, the tool is enabled for use. At this point, only a limited number of sheets will be accessible because most of the sheets are driven by the parameters of the project which you will set up later. Initial Setup of the EVM Report Template tool is covered in chapter 6 of my book in detail and in brief within this user manual on page 7.

Important User Notes: This EVM Template tool has most of the cells protected and you are not permitted to change any protected cells. There are some cells which are enabled for data entry and these cells are color coded in white with a border. If you try to enter data into any other cell you will get a excel error message saying that the tool is protected. This EVM Template tool is completely protected and you are not permitted to change or add any new sheets or anything else in the tool. However, you are permitted to change the formatting of the data.

You can also create a PDF version of the report generated by the tool using any PDF converter tool available in the market. You would need to install the PDF converter as a Printer and print to the PDF Converter to create a PDF version of the report generated by the tool.

Important Service Note: If you have questions or experience any difficulties, please contact Connoizor Customer Support listed on page 2 of this user manual. Do <u>not</u> contact J. Ross Publishing, Inc., the publisher of my book. J. Ross Publishing does <u>not</u> provide assistance for software developed and produced by another firm or party.

Microsoft® Office Project Prerequisites

Things that you will need to do as part of the Microsoft Project Plan (MPP) development is given below.

Mandatory Prerequisites

1. A Clear WBS (Work Breakdown Structure) needs to be prepared with the Top Level Activity as the Project and the second level being phases of the Project or as required by the type of project.

    A Sample WBS is given below.

        XYZ Project
            Requirements
                    Requirements Gathering
                    Requirements Review
                    Requirement Approval
            Design
                    Coding
                    Testing

2. Schedule should be tracked using Duration Column and the effort should be tracked using the Work Column.

Optional Recommended Prerequisites

1. The MPP should be setup to have a default task type as "Fixed Work". In the Menu use the Tools Menu and the Options to make this setting.

2. Resources used on the project should be assigned Standard & Overtime rates as 1 if you want to track hours instead of Cost. In case you have the actual cost of resources, then you can apply the hourly rate of the resources. This can be done in the Resource sheet of Microsoft Project Plan.

3. It would be better if you use the Priority of tasks for sequencing the tasks instead of the dependencies using the Predecessors/Successors. But using Predecessors/Successors is still fine only that you will be spending too much time adjusting the plan in case there are too many ongoing changes to the plan.

4. Resources should be leveled using the Resource Leveling feature in the MPP. For details on Resource Leveling refer the MPP help. Without doing the resource leveling you will not get a S-Curve for the BAC.

Initial Setup of the Template

Project Details

From the title page of the software click on Go to Main Page. **Note: After each function performed, you will need to "Go Back to Main Page" to select the next function that you wish to perform by clicking on the appropriate button displayed.**

1. Enter the Project Start Date and End Date.
2. Enter the Total Budgeted Cost of the Project.
3. Next go to Configuration on the main page

Configuration

On Main Page select Configuration
1. Choose the Reporting Period. Options are Weekly, Fortnightly, Monthly, Bi-Monthly.
2. Enter the number of Additional reporting periods needed over and above the reporting periods calculated.
3. Enter the Other Index 1 for tracking any other index which you may be using.
4. Enter the Other Index 2 for tracking any other index which you may be using.
5. Enter the Other Index 3 for tracking any other index which you may be using.
6. Choose the EAC Calculation Method. Options are 1 – Variances are typical, 2 – Past Estimating Assumptions are not valid & 3 – Variances will be present in the future.
7. Click the "Setup" Button to Setup the EVM Report Template.
8. You can choose to Undo Setup by clicking "Clear Setup" Button in the configuration sheet of the template. Excel will prompt with a warning for deleting the sheets, please choose option delete on all the prompts until no further prompts appear. The set up file will indicate "Not Set Up". **Failing to choose delete will corrupt the sheet or sheets beyond repair. Once you have completed this delete process, you may safely close the tool and perform new setups at a later time. This is true only if you are trying to undo your setup.**

EVM Data Sheet

Go Back to Main Page and select EVM Data
1. Update the PV and the BAC rows with the data from the Cumulative Baseline Cost from the MPP.
   a. You can do this by going to the Task Usage Sheet in the MPP.
   b. In the Task Usage Sheet click on the Top Level task which represents the Project . (Like XYZ mentioned in the above example).
   c. On the right hand side of this sheet you will have to right click and select the Baseline Cost and unselect all other items.
   d. Expand/Collapse the work periods using the +/- magnifying glass icons to suit your project.
   e. Copy the values until the end of the Project and paste it in the column C5 of the EVM Data Sheet.

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Periodical Updation of the Template

Data Entry

Go Back to Main Page and select Update Periodic Data

1. Enter the Reporting Period Date.
2. Ensure the Date is correct and available in the EVM Report Template in the Period Availability field.
3. Enter % Complete for the period from Microsoft Project Plan.
4. Enter Earned Value (BCWP) from Microsoft Project Plan.
5. Enter Actual Cost (ACWP) from Microsoft Project Plan.
6. Enter Estimate to Complete (ETC) in case you have chosen the EAC Calculation method as 2.
7. Choose the EAC Calculation Method.
8. Click on Update Period Data to Update the Periodical Data.

Periodical Status/Progress Review

Summary

Go Back to Main Page and select Summary

1. Enter the Project Status Date. The Status date should be one of the Reporting Period Dates only. You cannot enter any other date.
2. Click on "Update Status Date" button to get the details for the status date.
3. Enter the description of the Performance Measure Outcome.
4. Enter the Reasons for the outcome.
5. Enter the Corrective Actions to be taken if required.
6. You can choose to save this periodical data to history by clicking on "Create History" button.
7. You can choose to wipe out History by clicking "Clear History" button.

You are all set to check out the graphs and trends in the graphs. Trends in the graphs will start appearing only after you update a few periods' data.